



Contribution ID: 172

Type: **Workshop**

C3S/CAMS Data Stores: Enhancing open access to Climate/Atmosphere Data and Services

Copernicus is a European system for monitoring the Earth. The European Commission (EU) entrusted ECMWF with the implementation of the Copernicus Climate Change Service (C3S) and Atmosphere Monitoring Service (CAMS).

The Climate Data Store (CDS) constitutes the core infrastructure supporting the implementation of the C3S and a dedicated instance, the Atmospheric Data Store, will be soon released for CAMS. This dedicated Data Stores provides open access to Climate and Atmosphere data at temporal and spatial scales relevant for various sectoral and societal benefit areas. CDS is designed as a distributed system and open framework, providing improved access to a wide catalogue of datasets via a powerful service-oriented architecture. It offers seamless web-based and API-based search and retrieve facilities to access available data and information. In addition, one of the major features of the CDS is the provision of a generic software toolbox that allow users to develop web-based applications making use of catalogued datasets.

The variety of data sources, types and formats, as well as large volumes, makes their combined and interoperable use highly challenging. The use of standards facilitates the interoperability and usability of data and services along different components of the infrastructure. The toolbox abstracts the physical location of the datasets, their access methods, formats, units, etc. allowing applications developers to focus on algorithms to perform basic operations on the datasets; a set of available tools can be combined into more elaborated workflows, and present results graphically on the CDS web site in the form of interactive applications.

After one year in operation, more than 30k registered users and near 40TB of daily data delivered, the aim of this hands-on workshop is to guide the audience through the CDS/ADS catalogued and toolbox functionalities and collect inputs and feedback from the audience as for the current and future compliance with INSPIRE, further developments and implementations that would enhance the usability of the system functionalities and its content.

The workshop aims to:

- Provide an overall view about the current CDS infrastructure.
- Introduce catalogue integration processes and available content.
- Data discovery and retrieval -> Hands-on session followed by an open discussion to collect inputs and feedback.
- The toolbox editor. -> Hands-on session followed by an open discussion to collect inputs and feedback.
- Presentation of existing applications. -> Demonstration followed by an open discussion to collect inputs and feedback.

CDS is available at: <https://cds.climate.copernicus.eu>

Sub-category

3.2 Climate change

IJSDIR

Yes, I will submit an article to IJSDIR

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